Posterior Uterine Wall Rupture during Labour in Primigravida - A Rare Case Report

Archana Bharti[1], Poonam Singh[2], Neelam Nalini[3]

ABSTRACT

Introduction: Uterine rupture is an obstetrics emergency having major maternal and fetal morbidity and mortality.
Case report: Here we report a rare case of rupture of posterior wall of uterus especially in primigravida. An unbooked case of 32 years old primigravida with 9 months of gestation without any high risk factors, presented with lower abdominal pain at tertiary centre of Jharkhand. On evaluation, we found uterine rupture in posterior wall of uterus extending from fundus to the left lateral wall of the uterus during labour. Hysterectomy and tube ligation were planned but patient and family members refused to give consent for that. Afterwards, uterine repair was done and patient was strictly advised not to plan next pregnancy and follow contraceptive advices.
Conclusion: Uterine rupture in primigravida can occur with devastating consequences and low socioeconomic status with poor antenatal care may be an independent risk factor.

Keywords: Posterior Wall Uterine Rupture, Primigravida, Unscarred Uterus

INTRODUCTION

Uterine rupture is the complete disruption of all layers of the uterus, including the serosa. In resource-rich countries the most significant risk factor is a previous caesarean section, where the risk of rupture is put at 22-74/10,000 with one previous scar[1], as compared to 0.5-2.0/10,000 in unscarred uteri.[2] Uterine rupture is an obstetrics emergency with catastrophic maternal and fetal effects. Although this is rare in modern era obstetrics and if occurs then mostly due to previously scarred uterus like previous caesarean section, hysterectomy, D&C, myomectomy etc. Consequences of uterine rupture depend on the time between diagnosis and delivery time. Maternal consequences are haemorrhage, hypovolemic shock, bladder injury leading to need for hysterectomy and death. Fetal consequences varies from fetal hypoxia or anoxia to neonatal death.[3] According to WHO, systematic review of maternal mortality and morbidity secondary to uterine rupture showed that the prevalence of uterine rupture tends to be lower in developed countries as compared to developing countries with a prevalence rate of 0.006% where as in developing countries varies from 1 in 2000 to 1 in 200 deliveries.[4]

CASE REPORT

An unbooked case of 32 years old primigravida female came to ER at tertiary centre of Jharkhand with complaints of 9 months amenorrhea and lower abdominal pain for last 2 hours. On evaluation, she had no significant medical, surgical and family history. On clinical examination mild pallor was present, vitals were normal, uterus term size and mild contraction were present, cephalic presentation with head 4/5 palpable, FHS 150/min were documented. Bishops score were favourable (3 cm dilated OS, 70% effaced, anteriorly placed, head at - 3 station membrane present). She was monitored in labour room and labour was progressing smoothly. Labour was augmented with oxytocin and ARM was done. During labour course no fetal distress was documented and uterine contraction were normal. After 4 hours of normal labour course, she developed increased intensity of pain along with features of hypovolemic shock and sudden persistent fetal bradycardia and cervical dilatation up to 6 cm were documented. Initial resuscitation was started along with decision for immediate laparotomy. On laparotomy, a large amount of hemoperitoneum approximately 3000 ml with fetus and placenta completely lying outside the uterus in peritoneal cavity were found. After urgent delivery of baby, uterus was exteriorized to explore the site of bleeding. An 8 cm irregular complete tear extending from fundus involving lateral uterine wall up to lower uterine segment were found. Active bleeding was found at the tear site. No congenital uterine anomalies, no evidence of endometriosis or adhesion were noted in the uterus and both tubes and ovaries were healthy. Patient and family members refused for hysterectomy as well as tubal ligation, so primary repair of uterus with ligation of bilateral uterine artery done after taking proper consent. Surgery was done under proper aseptic precaution and abdominal drain was placed. Patient was shifted to high dependency obstetrics unit. Two units of packed red cell were transfused during surgery and two units were given in HDU. Drain was removed on 5th day of postoperative period. The baby weight was 3 kg with Apgar score of 5 and 7 at 1 and 5 min respectively were documented then baby was shifted to NICU for 5 days. The whole events were carefully explained to patient party with strict advice for avoidance of any future

[1]PG Student, Department of Obstetrics and Gynaecology, [2]Associate Professor, Department of Obstetrics and Gynaecology, [3]Assistant Professor, Department of Obstetrics and Gynaecology, RIMS, Ranchi

Corresponding author: Dr. Archana Bharti, E-9, Ayur Vigyan Nahar, Khelgaon Marg, New Delhi-10049

How to cite this article: Archana Bharti, Poonam Singh, Neelam Nalini. Posterior uterine wall rupture during labour in primigravida - a rare case report. International Journal of Contemporary Medical Research 2018;5(8):H5-H6.

DOI: http://dx.doi.org/10.21276/ijcmr.2018.5.8.28

pregnancy. In case of new pregnancy, careful monitoring and elective caesarean section were advised. Both mother and baby were discharged in healthy condition on day 14th after stitch removal.

DISCUSSION

Spontaneous rupture of uterus is life-threatening condition that is difficult to diagnose especially in unscarred uterus. There should be high index of suspicion of unusual and intractable pain abdomen in labouring women, which indicates uterine ischemic interruption, ischemic events and uterine rupture. Bretones et al found that the usual risk for uterine ruptures are multiparity, advanced age, grand multipara, overdistension of uterus, fetal macrosomia, fetal malposition, uterine anomalies, low socioeconomic status, lack of antenatal care, induction and augumentation of labour, instrumentation, attempted forceps delivery, external version and uterine trauma etc.[5,6] Walsh et al reported review of cases of uterine rupture in primigravidas. Among 36 cases, 11 had history of prior uterine surgery, most commonly myomectomy and 25 cases were reported in unscarred uterus and 4 cases had bicornuate uteri.[7] Laporotomy with total or subtotal hysterectomy is the treatment of choice although repair is possible only in few cases. Pregnancy should be strictly avoided after uterine repair and if occur then there should be regular antenatal care and delivery in higher institute where all facilities are available and delivery should be done by caesarean section only. In this case although no definite medical or surgical risk were identified but low socioeconomic strata and lack of antenatal care along with augmentation of labour could be the reason for uterine rupture. Because of tertiary care facilities, both mother and baby had been saved in this case.

CONCLUSION

This case emphasizes the importance of knowledge of a wide variety of risk factors, some of which may be specific to low socioeconomic strata, lack of antenatal care and augmentation of labour especially in primigravida.

REFERENCES

1. Green-top Guideline Number 45. London: RCOG Press; 2007. Royal College of Obstetricians and Gynaecologists: birth after previous casesarean birth.
2. Ofir K, Sheiner E, Levy A, Katz M, Mazor M. Uterine rupture: risk factors and pregnancy outcome. Am J Obstet Gynecol. 2003;189:1042-6.
3. Smith GC, Pell JP, Pasupathy D, et al. Factors predisposing to perinatal death related to uterine rupture during attempted vaginal birth after caesarean section: retrospective cohort study. 2004;14:329-75.
4. Hofmeyr GJ, Say L, Gulmezoglu AM. WHO systematic review of maternal mortality and morbidity: the prevalence of uterine rupture. BJOG. 2005;112:1221-8.
5. Bretones S, Cousin C, Gualandi M, Mellier G. Uterine rupture. A case of spontaneous rupture in a thirty weeks primiparous gestation. J. Gynaecol obstel Biol Reprod (Paris) 1997;26:324-7.
6. Aboyeji AP, Ijaiya MD, Yahaya UR, Ruptured uterus: a study of 100 consecutive cases in Ilorin, Nigeria. J. Obstet Gynaecol. Res. 2001:27:341-8.
7. Walsh CA, Baxi LV, Rupture of the primigravid uterus: a review of the literature, Obstet. Gynecol. Surv. 2007;62:327-34.

Source of Support: Nil; **Conflict of Interest:** None

Submitted: 15-07-2018; **Accepted:** 10-08-2018; **Published:** 31-08-2018